

Notice of Allowability

Application No.

10/645,355

Examiner

James S. Bergin

Applicant(s)

KARLIN ET AL.

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of 6/15/2005.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/17/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: the known prior art does not disclose or fairly teach an inflator comprising a hybrid multi-stage gas generator, the gas generator comprising: first and second pyrotechnic units; a chamber accommodating compressed gas; a gas outlet aperture located in a flow path from the chamber containing the compressed gas to the exterior of the inflator, the gas outlet aperture having an initial cross-section to define an initial gas flow area, the gas outlet aperture incorporating a deformable part configured to deform in response to a predetermined gas pressure within the chamber so as to increase the cross-section of the gas outlet aperture and thereby increase the gas flow area of the gas outlet. There is insufficient motivation to modify O'Loughlin et al.'s (US 5,794,973) rupture disk 102 and aperture 60 arrangement with the flap/ tab elements 5 of Schnowitz et al. (US 6,467,805), absent the use of impermissible hindsight reconstruction. O'Loughlin et al. dual state hybrid inflator works perfectly well without making any modification to the rupture disk 102 and aperture 60 arrangement. Similarly, the Dolling et al. (US 6,786,507) reference cannot be properly used to modify O'Loughlin et al. to arrive at the applicants' invention because Dolling et al. discloses a rupture membrane arrangement that does not define a gas outlet aperture with an initial cross-section defining an initial gas flow area before the membrane 22 ruptures.
2. This statement is not intended to necessarily state all the reasons for allowance or all the details why the claims are allowed and has not been written to specifically or impliedly state that all the reasons for allowance are set forth (MPEP 1302.14).

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 571-272-6872. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. Bergin', followed by a horizontal line.

James S. Bergin



REPLACEMENT SHEET

Title of Invention: AN INFLATOR

Inventor: Mats Karlin, et al.

Serial No.: 10/645,355

Docket No.: 3390.2.16

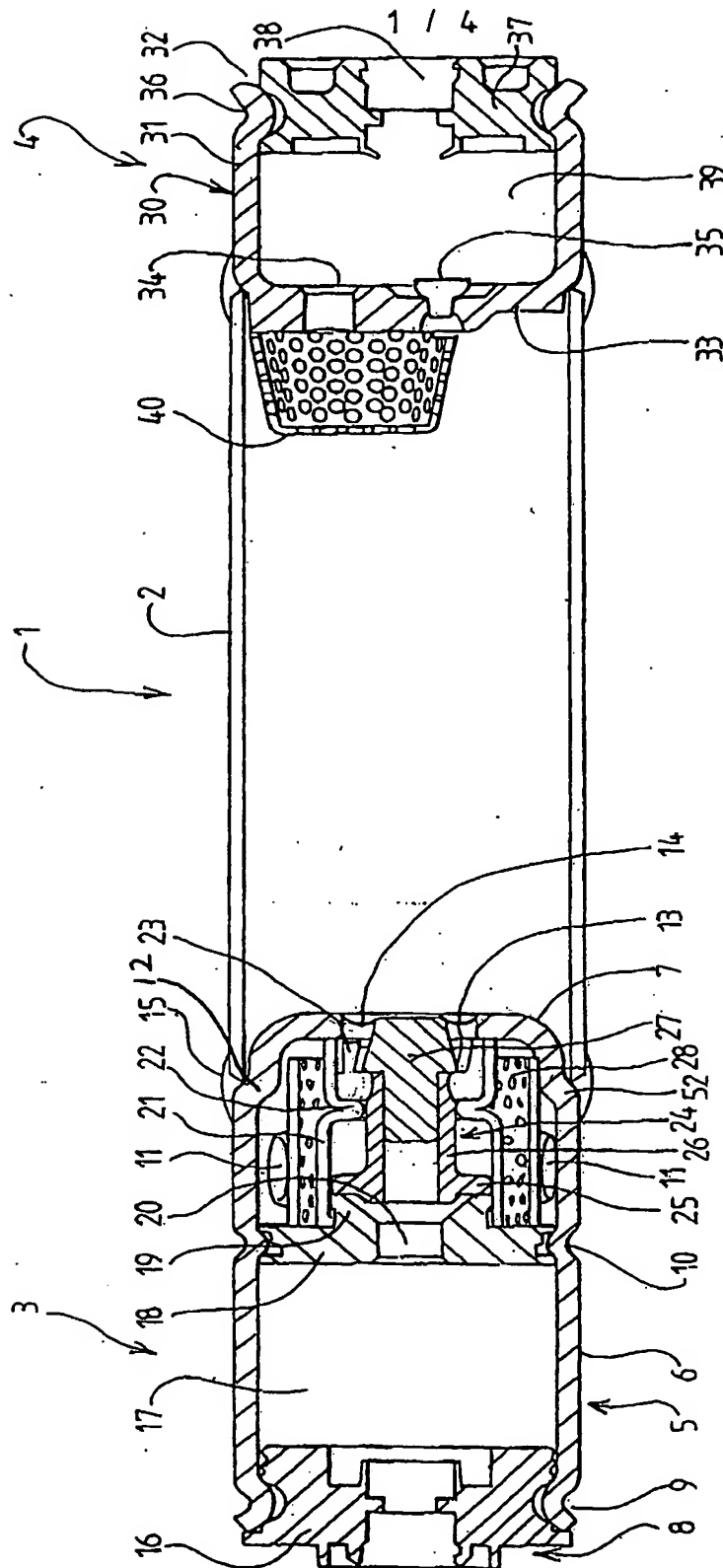


FIG 1



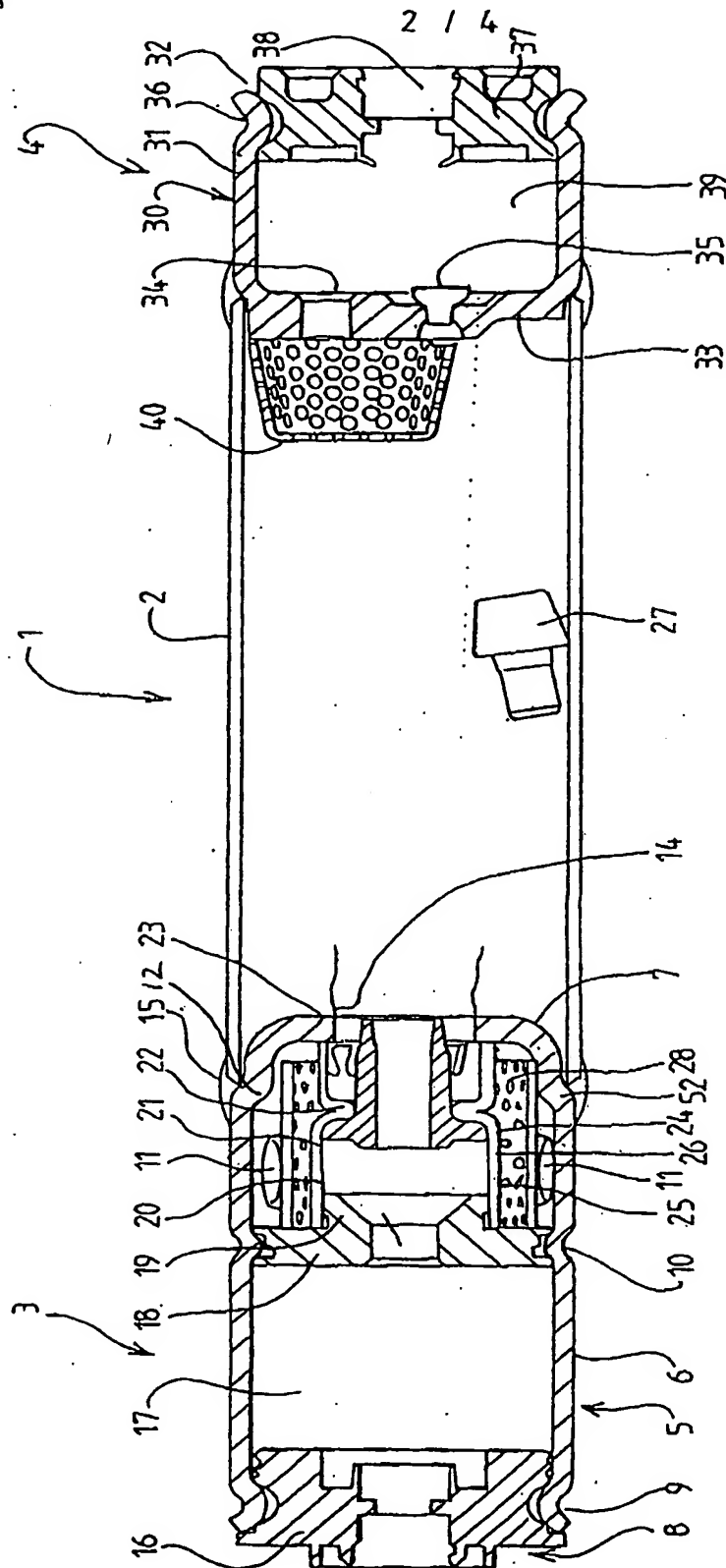
REPLACEMENT SHEET

Title of Invention: AN INFLATOR

Inventor: Mats Karlén, et al.

Serial No.: 10/645,355

Docket No.: 3390.2.16

FIG 2